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ABSTRACT

This study assessed demographic information on early childhood programs and teachers of 3- and 4-year-olds. Questionnaires were sent to a random sample of early childhood programs across the United States. Data were collected on teacher characteristics and structural features (enrollment, class size, hours of operation, and ratio of teachers to students) of early childhood programs. Participating were 1,902 teachers. Responses indicated that the vast majority of these teachers were women and that 78 percent of the teachers were white. Approximately 50 percent had earned a college degree, although educational attainment varied among program types. For-profit centers outnumbered other types of centers (29 percent of centers), although the number of early childhood programs in public schools was increasing rapidly (16 percent). Twenty-two percent of centers were affiliated with a religious organization, 25 percent were independent non-profit or other public agency, and 8 percent were Head Start programs. The majority of centers were open for the full day. Racial/ethnic composition in the average classroom was 66 percent white, 15 percent African American, 9 percent Hispanic, 5 percent mixed race, 4 percent Asian American, 1 percent Native American, and 1 percent other. About 60 percent of classrooms had a predominant racial/ethnic group, with Head Start programs most likely to be predominantly African American and church/synagogue-based programs especially likely to be predominantly white. The average classroom had 16.4 children and 2.0 paid staff. (Contains 19 references.) (KB)

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Characteristics of Early Childhood Teachers and Structural Elements of Early Care and Education in the United States

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Characteristics of Early Childhood Teachers and Structural Elements of Early Care and Education in the United States

Abstract

Research Findings. This paper summarizes demographic information on early childhood programs and teachers of 3- and 4-year olds. Questionnaires were sent to a random sample of early childhood programs across the United States. Data were collected on teacher characteristics, and structural features (enrollment, class size, hours of operation, and ratio of teachers to students) of early childhood programs.

We estimate that there are 284,277 teachers of 3- and 4- year olds in the U.S. The vast majority of these teachers are women and 78% are White. Approximately 50% of these teachers have earned a college degree, though educational attainment varies among program types. For-profit centers currently outnumber other types of centers, though the number of early childhood programs in public schools in increasing rapidly.

Practice or Policy. Parents must choose among different program types when selecting a setting for their children. therefore it is important for them to have access to information about the characteristics of early childhood programs and teachers. Additionally, policy-makers need to understand the distinctions that exist between different types of early childhood settings as they adopt regulations and make funding decisions that affect parental choice of programs.

Characteristics of Early Childhood Teachers and Structural Elements of Early Care and Education in the United States: A National Survey

Over the last three decades, the number of children in early childhood programs before kindergarten has been increasing. Currently, more than 3 of every 5 mothers with children under the age of 6 are in the labor force (U.S. Bureau of the Census, 1996). According to data from the National Center for Education Statistics, in 1995, 67% of 3 year olds and 77% of 4 year olds spent some amount of time, each week, in nonparental care (Hofferth, Shauman, & Henke, 1998). These numbers are bound to increase, given the increase in numbers of mothers in the workforce, and the emphasis on sending children to kindergarten "ready for school."

Types of Programs Serving Young Children

Young children are being served in a variety of settings, including center-based programs, family child care and care provided by relatives other than parents. The current study focuses on center-based care. These programs vary with regard to for-profit versus non-profit status. Within profit status, they further vary with regard to organizational affiliation. For example, within the for-profit sector, settings can be independently operated or operated by a national or local chain. Within the non-profit sector, settings can be affiliated with Head Start, a public school, a religious organization, or another type of non-profit (e.g., YMCA). Both the setting's profit status and its organizational affiliation have implications for many aspects of the program's operations. Head Start, for instance, has specific guidelines governing class size, teacher education, and curriculum (Department of Health and Human Service, 1996). Likewise, religiously affiliated settings in several states guidelines (e.g., Arkansas, Missouri & North Carolina) may operate within guidelines put forth by the sponsoring church or synagogue and are often exempt from state child care (National Resource Center for Health and Safety in Child Care, 2000).

A study by the Mathematica Policy Research group (Kisker, Hofferth, Phillips, & Farquhar, 1991) estimated that at the beginning of 1990, there were approximately 80,000 center-based programs in the United States. The authors differentiated program types by "sponsorship," defined as "a program's

belonging to or having an affiliation with another organization from which the program receives direction and/or funding" (p. 33), and found that two-thirds of centers serving children 3 or older were non-profit. Of those, about 23% were sponsored by a religious organization (such as a church or synagogue), 12% were sponsored by a public school, and 14% by a Head Start. An additional 51% of non-profit centers were either independent or sponsored by another organization. Of the 36% of for-profit centers, 17% were national or local chains and 83% were independent.

Structural Features of Quality

Despite the increasing number of children in care, we have little national information about the characteristics of early childhood teachers and the structural features of early childhood settings. We know what high-quality programs look like and we have some evidence that the quality of care varies among different types of settings (Kisker, et al., 1991); however, we lack a current profile of early childhood settings and the early childhood workforce. The current study aims to fill this gap by providing a current national profile of the early childhood programs and teachers, including information on various aspects of quality.

Data from the Cost Quality and Outcomes study (1995) suggest that several structural characteristics of care settings are associated with quality in early childhood programs. These characteristics include the level of teacher education and specialized training, teacher wages, child to teacher ratios, teacher turnover, and administrator's prior experience.

Teacher education. Generally speaking, high-quality programs employ teachers who have completed more years of education than do lower quality programs. Further, teachers in high-quality settings tend to have more specialized training in early childhood education and/or child development, as they are more informed about developmentally appropriate practices and teaching strategies for young children. Due to the short supply of teachers trained in early childhood education and the tight budgets of programs, it can be difficult to hire and keep teachers who are highly trained for their jobs (Whitebook, Howes, Phillips, 1989).

According to data from the 1990 Profile of Childcare Settings (Kisker, et al., 1991), 47% percent of teachers had a four-year college degree, 13% had an Associates degree, 26% had some college, 13% had graduated from high school, and 1% had less than a high school degree. While these numbers may appear high in comparison to the general population, they are dramatically lower than the population of kindergarten teachers (Early, Pianta, & Cox, 1999). Teachers in non-profit settings tend to be more highly educated than teachers in for-profit settings. Approximately 33% of teachers in for-profit settings had a college degree, while half of teachers in non-profit settings had a college degree. Further, teachers in public school-based settings were more educated than teachers in other settings. Eighty-eight percent had a college or graduate degree, compared to 50% of teachers in religious settings and 45% of Head Start teachers.

Wages and turnover. Teacher education is highly correlated with teacher wages and turnover, two other important features of quality. As in other professions, teachers with more years of education tend to be paid more than less educated teachers. Furthermore, teachers who are paid more tend to stay at their jobs longer than those who are paid less (Whitebook, Howes, & Phillips, 1989).

Data from the Cost, Quality and Outcomes study indicate high-quality settings have half as much turnover as lower quality settings (Cost, Quality and Outcomes Study Team, 1995). Research has demonstrated that children can be affected by the consistency, or lack thereof, of caregivers. Children with multiple caregivers in childcare can form insecure attachments with their mothers and can have difficulty adjusting to school (Hayes, et al., 1990; Howes and Stewart, 1987, as cited in Kisker et al., 1991). While teacher turnover seems to be a significant challenge in all types of programs, in 1990 for-profit centers had far higher teacher turnover than did non-profit centers. Head Start and public school-based programs were less likely to experience teacher turnover than any other program type (Kisker, et al., 1991).

Child to staff ratios. Child to staff ratios are another important feature of quality. Generally speaking, higher quality early childhood programs have more staff per child, thus children are likely to receive more individualized attention in centers where there are more teachers and fewer students. The

National Association for the Education of Young Children (NAEYC, 1997) recommends a ratio of 8 children per staff member for three-year olds and 10 children per staff member for four year olds. Data from the 1990 Profile of Childcare Settings indicate that in 1990 the average was 9.9 children per staff member serving 3 to 5 year olds (Kisker, et al., 1991).

Other Important Features of Early Childhood Education

In addition to the indicators of quality discussed above, there are other important factors to examine when considering structural features of early childhood programs. These include the cultural representation of teachers of young children and the hours that these programs operate.

As our population grows more diverse, it becomes increasingly important to have a diverse group of teachers. Ideally, the pool of teachers should reflect the cultural breakdown of the children, as a more diverse teaching pool encourages a more culturally sensitive environment for children. The field of early childhood education needs knowledgeable, trained, competent, and sensitive multilingual/multicultural early childhood educators. Further, early childhood educators who speak more than one are an invaluable resource in the early childhood setting (NAEYC, 1995).

Little information is available with regard to hours of operation for early childhood programs, but this program feature is clearly of importance to parents. If programs aimed at providing enriching early educational experiences (e.g., Head Start, school-based public pre-kindergarten) only operate for a half day or school day, parents who are employed full-time must find other care options for their children. The inflexible work schedules of working-class and poor parents may prevent some children from attending these programs that are designed specifically for them. This problem may be even more challenging for the 7.3% of women and 9.3% of men with children under 6 years of age who work 2nd or 3rd shift (Bureau of Labor Statistics, 1997). Center-based care may be entirely unavailable for these families.

The Current Study

This paper aims to fill the gap in current information on the early childhood workforce and structural features of center-based early childhood programs by presenting the results of a nationally

representative survey of teachers of three and four year olds. This study was conducted by the National Center for Early Development and Learning to provide demographic information on early childhood programs and teachers and to assess teachers' practices, beliefs, and perceived barriers to endorsed practice. The current paper summarizes demographic information and compares it to estimates from other sources, including the 1990 study of child care settings (Mathematica Policy Group Inc.). We will present data on teacher characteristics, as well as structural features (enrollment, class size, hours of operation, and ratio of teachers to students) of early childhood programs across the United States. Because previous research has indicated links between early childhood program sponsorship (program type) and many features of early childhood programs, we focus on comparing centers across sponsorship categories (program types). Parents must choose among different program types when selecting a setting for their children. Policy-makers need to understand the real distinctions that exist between different types of early childhood settings as they adopt regulations and make funding decisions that affect parental choice of programs. Thus a better understanding of how program type is linked to structural features of quality is important.

Method

Sample Selection and Procedures

We mailed questionnaires to stratified random sample of 4,979 directors of early childhood centers, nationwide in the Fall of 1997. Early childhood programs were selected from a larger list of 85,715 programs, purchased from a commercial firm. We believe that this list is the most comprehensive catalog of early childhood programs available. There are no national lists or registries of early childhood teachers. This is due, in part, to the high turnover in this field and the lack of national or state-level infrastructure.

The sample was stratified on eight levels of program type (national or local chain, independent for-profit, religious affiliate, Head Start, public school, independent non-profit, other public agency, and unknown) and four levels of program size (less than 40, 40-99, 100+, and unknown) creating 32 sampling cells. We over-sampled for chains and other public agencies at each level of center size because those

were relatively small groups in the frame and we wanted to ensure a high enough response to draw meaningful conclusions. The sample included all types of part-day and full-day center-based care. Family child care homes were excluded. We over-sampled for chains and other public agencies because those were relatively small groups in the frame and we wanted to ensure a high enough response to draw meaningful conclusions. The sample included all types of part-day and full-day center-based care, including Head Start, public school based, church or synagogue based and national and local chains. Family day care homes were excluded.[1]

Directors were asked to fill out the first page of the questionnaire, which asked general questions about the center (e.g., number of children served, program type). After completing this section, directors were asked to give the survey to the teacher of three or four year olds who she/he felt was best qualified to answer the remainder of the questions. Directors were specifically asked not to complete the teacher portion of the survey themselves, unless they were the only teacher of 3 and 4 year-olds in the center. This strategy was selected based on pretests that showed that directors used this procedure most often, even when given alternate instructions. While this teacher selection strategy was not the preferred strategy, pre-testing indicated that this strategy was used by most directors, regardless of the instructions given.

The teacher-section of the survey included questions about teachers' views of their roles as early childhood educators, their training experiences and barriers to additional training, the discipline strategies they employ, their classroom practices and beliefs about best practice, barriers to engaging in the practices they endorsed, and demographic characteristics. Survey items were primarily written by the authors and were heavily pre-tested both via face-to-face interviews with local early childhood teachers and with two national samples who received and returned the survey by mail and later provided feedback by phone.

Response Rate

[1] For a complete description of the sampling and weighting strategy, please contact the first author

Our final sample includes 1,902 teachers of three and four year olds. Of the 4,979 mailed surveys, 4,782 went to valid addresses. At total of 2,031 were returned, for a return rate of 43%. Of the 2,031 that were returned, 1,971 were completed. The remaining 60 indicated that they had either closed or did not serve 3 or 4 year-olds. Finally, several were omitted because they were completed either by (1) the center director who did not teach 3 or 4 year olds (n= 51), or (2) a teacher of children younger or older than 3 or 4 years of age (n= 18). This left us with 40% of the surveys that went to valid addresses available for analyses. The current sample does contain 132 cases (7% after weighting) where a director completed the survey. All of these directors were also lead teachers of three or four year olds, with primary responsibility for a group.

Data Analysis

Our primary goals in this study were to learn about what early childhood programs across the United States look like and to compare programs across the different program types. To this end, we will present national estimates of means and percentages, cross-tabulated by program types. Due to the large sample size, very small between group differences are statistically significant. For this reason, we do not present tests of significance.

In order to obtain meaningful national estimates, two sets of weights were created: one to estimate center-level values and one to estimate teacher level values. The center-level weights are based on the original sampling frame. The teacher-level weights are the product the center-level weight by the number of teachers of 3- and 4-year-olds at the center. All analyses were conducted using SUDAAN, a software package specifically designed for complex sample surveys

Results

Early Childhood Program Characteristics

Program type. Directors were asked, "Which of the following best describes your center/school?" and were provided with a list of nine options. We grouped these nine options into five classifications of program type: 1) public school (excluding Head Start), 2) Head Start, 3) independent non-profit and other public agencies (for example, operated by public college/university; public hospital),

4) affiliated with a church or synagogue, and 5) for-profit (includes independent for-profits, local for-profit chains, and national for-profit chains). Table 2 indicates the sample sizes and population estimates for each of these categories. Using these data, we estimate that 8% are Head Start programs, 16% are in public schools, 25% are independent non-profit or other public agency, 22% are affiliated with a religious organization, and 29% of centers are for-profit.

Insert Table 1 about here

Hours of operation. Center directors were asked to indicate the opening and closing times of their centers. We categorized their responses into four different groups: half day (5 or less hours), school-length day (5.1-8 hours), full day (more than 8 hours) and non-traditional hours (open any hours between 9:00 pm and 5:00 am). These categories are mutually exclusive, and programs were categorized as "non-traditional hours" if they were open during the night, regardless of the number of hours they operated. Results indicate that the majority (58%) of early childhood programs are open for the full day. Thirty percent are open for the school day, 12% are open half days, and 1% are open during non-traditional hours. This pattern held true across program types, with some variation. For example, as one would expect, public schools have the largest percentage of programs open schools days (see Table 2).

Insert Table 2 about here

Teacher Characteristics

Using these data, we estimate that there are 284,277 teachers of 3- and 4- year olds in the U.S.

Age and gender. Teachers were asked to indicate their age and gender. We estimate that the average age of teachers of three and four year olds is 39 years (SE = .34). For-profit centers have the youngest average age (M = 35, SE = .72), while public school teachers have the oldest average age (M =

42, SE = .67). Ninety-nine percent of teachers of three and four year olds are female. Gender did not vary across program type.

Race/Ethnicity. Teachers were asked to indicate their race/ethnicity by checking all races/ethnicities that applied to them from a list of six options. By our estimates, the majority of teachers of three and four year olds are White (78%), followed by Black or African American (10%) and Hispanic or Latino (6%). Only 1% of teachers are Asian or Pacific Islander, and less than one percent (.85%) are American Indian or Native Alaskan. A remaining 4% classified themselves as mixed/other. Table 3 displays the teacher racial/ethnic breakdown, by program type. As is evident in this table, there is a smaller percentage of White teachers in Head Start programs than other program types. Additionally, public schools have a higher percentage of Hispanic or Latino teachers than any other program type.

Education: Teachers were asked, "How far did you go in school?" and given eight options, from "8th grade or less" to "Advanced degree (Masters, Doctorate)." As seen in table 3, we grouped their responses into four categories. Ninety-one percent of teachers of 3- and 4- year olds have some education beyond high school. Of this number, 27% have some college and an additional 50% have at least a bachelor's degree. Only 0.1% stated that they did not have a high school diploma or GED equivalency. Teacher education varies by program type. Public school teachers had more education than teachers in other program types. Eighty-seven percent of teachers who work in the public schools have at least a BA degree, while less than 50% of teachers in religious settings, for-profit settings, and Head Starts have a BA (see Table).

Insert Table 3 about here

We also asked teachers to report what types of training they had received in early childhood education and/or child development. We asked teachers to check all that apply from the following list: (1) no specialized training, (2) workshops, (3) some college courses but no degree, (4) CDA (Child Developmer Associate), (5) AA (Associates Degree), (6) working on Bachelors, (7) BA/BS (Bachelors),

and (8) Advanced degree. Less than one percent of early childhood teachers reported no training in early childhood. Many (62%) have at least attended workshops on early childhood topics. Thirty-one percent have taken some college level courses in early childhood but have not earned a college degree in early childhood, 19% have earned a CDA, 12% have an Associate's degree, 31% have earned a Bachelor's degree, and 13% have an advanced degree in early childhood.

Tenure. We asked teachers to indicate how long they had been employed at their current job. Using these data, we estimate that on average, teachers have been at their jobs 82 months (6.8 years). Teachers who teach in the public school or at a church or synagogue have been at their jobs the longest ($\underline{M}$ = 93 months, or 7.8 years). Head Start teachers have been at their jobs for an average of 83 months (6.9 years), and teachers at public agencies or independent non-profit agencies have been at their jobs 85 months (7.1 years). Teachers at for-profit centers have spent the least time at their current jobs, averaging 67 months (5.6 years).

Hours worked per week. Teachers were asked, "How many hours do you usually work at this center/school each week?" Our data indicate that teachers report working an average of 35 hours per week. The majority (75.8%) of teachers reported working between 20-40 hours per week, though 16% work less than 20 hours per/week, and 9% work more than 40 hours per week. It is unclear however, if this number reflects the number of hours for which they are paid for their time.

The above pattern held true, to varying degrees, across program types. More teachers in public schools reported working over 40 hours per week (16.3%) than in any other program type. Some teachers in other program types also reported that they worked over 40 hours a week, but those percentages were not as high. Three percent of teachers in church/synagogue programs reported working more than 40 hours per week, while 12% of teachers in non-profit work over 40 hours per week. Teachers at church/synagogue settings most often reported working less than 20 hours per week (24%). Nine percent of teachers at for-profit centers reported working less than 20 hours per week, while only 3% percent of Head Start teachers reported working less than half time.

Classroom Characteristics

Child race/ethnicity. Teachers were given racial/ethnic categories and asked to indicate the number of children in her class in each category. Although classes vary with regard to racial diversity of children, our data suggest that the average early childhood classroom is 66% White, 15% African American, 9% Hispanic, 5% mixed race, 4% Asian American, 1% Native American, and 1% other. Public school and Head Start programs are more ethnically diverse than other programs. Table 4 displays the racial breakdown for all program types.

Insert Table 4 about here

The numbers in Table 6 represent what the average classroom looks like. In reality, since there is wide variation with regard to racial diversity, very few classrooms will resemble the "average" classroom. For this reason we calculated the percent of classrooms in which one racial/ethnic group is prevalent. If a classroom had 75% or more of one racial/ethnic group, we considered that group prevalent in that classroom.

Our results indicate that most classrooms (61.3%) in the United States have a racial/ethnic group that predominates and that group is White about half the time (see Table 5). However, a large minority of classrooms (38.7%) has no racial/ethnic group that predominates. Head Start programs are more likely than any other program to be predominantly African American. Church/synagogue based programs are especially likely to be predominantly White (67%).

Insert Table 5 about here

Teachers. So, who are the teachers who are teaching children of diverse backgrounds? As stated previously, the majority of early childhood teachers are White; however, many classrooms that contain a large number of non-White children have teachers from the same racial/ethnic groups as predominates in

the classroom. To explore this issue, we looked at classrooms that contain 75% or more children of one race, and then looked at the teachers in these classrooms. As seen on the diagonal center-line of table 6, classrooms in which the 75% or more of the children are from one racial/ethnic group have a larger percent of teachers of that same race than teachers of another race.

Insert Table 6 about here

Class size and ratios. Teachers were asked to indicate the number of children and paid staff members in their group at one time. Based on these data, we computed child to staff ratios. As seen in table 7, the average classroom has 16.4 children, with 2.0 paid staff. The average child to staff ratio is nine to one. Programs in religious settings have the smallest class size, while Head Start programs have the largest class size. Public school programs have the most favorable child to staff ratios, while for-profit programs have the least favorable ratios (see Table 7).

Insert Table 7 about here

Discussion

The purpose of this paper was to present information on early childhood programs for 3- and 4-year olds and teachers of young children across the United States. Our data indicate that for-profit centers outnumber other types of centers, though there are many religiously-affiliated programs, Head Start programs, public schools, and other non-profit programs. The majority of programs operate more than eight hours a day, and almost none operate during night hours. Structural features of early education programs vary with regard to program type. We found that the vast majority of teachers of 3- and 4- year olds are White women. Teachers are diverse with regard to educational background, with about half holding a college degree.

Currently, we are lacking an ongoing, systematic way of collecting information on early childhood programs. Further, the information available varies with regard to sampling strategy, making direct comparisons and considerations of changes over time difficult. In the present study, we selected our sample through a random selection of center names from a list we acquired from a private marketing firm. Kisker et al. (1991) identified their sample of centers by first selecting a random sample of counties in the U.S. These counties were stratified according to region, metropolitan status, and poverty level. Once counties were selected, they randomly selected child care providers within each of the counties and collected information on all staff within their center. Therefore, the information they collected on teachers will not reflect the sampling error that our data reflect.

The Cost, Quality and Outcomes study (1995) selected their centers by first selecting regions within four states from which to collect data. Within each of these states the study team selected a stratified random sample of 100 programs with equal representation of for-profit and non-profit centers. Once centers were identified, classrooms were randomly chosen within each center. Only programs that provided services 30 hours per week and 11 months per year were included. Therefore, no public school or Head Start programs were included in their sample.

In the following section we will draw comparisons between our data and the data collected by Kisker, et al. (1991) and the Cost, Quality and Outcomes Study Team (1995). Despite the differences in sampling among those studies and the present study, all three of these studies are large-scale studies that provide us with a national picture of what is happening in early education programs. However, the differences in sampling strategies should be kept in mind when comparisons are made.

Data collected in the present study suggest that the number of early childhood programs in public schools has grown in the last ten years. While the sampling strategy for Cost, Quality and Outcomes (1995) does not allow for this type of calculation, Kisker, et al. (1991) reported that in 1990, 8% of centers were located in public schools. According to our estimates, this number has since doubled. This is consistent with the findings of other researchers that indicate that public schools are playing an increasingly large role in the provision of care and education of children prior to kindergarten entry in the

U.S. (Clifford, Early & Hills, 1999; Mitchell, Ripple & Chanana, 1998). Currently, over forty State Departments of Education are funding programs for 3- and/or 4-year olds (Schulman, Blank & Ewen, 1999), and many of these programs are in public schools. Clifford and colleagues found that at least one in seven four year olds was attending an early childhood program in a public school in 1995. Some states, such as Georgia and New York, are moving toward making pre-kindergarten available for all 4 year old in their state. Other states, such as Ohio and Minnesota, are using state dollars to expand Head Start programs in order to provide services to more children. Given the trend in the last few years, the number of young children in schools before kindergarten is likely to increase. Clearly, the issue the role of public schools in providing programming prior to kindergarten is a topic that merits further study.

Quality Practices

Though the Profile of Childcare Settings Study (Kisker, et al., 1991) was conducted ten years ago, there are many similarities between those data and the data we collected in the present study. For example, with regard to education, teachers in public schools are still more educated than teachers in other settings, especially those in for-profit settings. Overall, as reported by Kisker, et al. (1991), 50% of teachers of 3- and 4-year olds still do not hold a college degree. The Cost, Quality, & Outcomes Study (1995) reported that only 31% of teachers had a college degree. However, their sample mostly excluded the pubic school teachers, the group found to have the highest education in our sample. If public school teachers were excluded from our sample, teacher educational attainment would look much more similar to the Cost, Quality and Outcomes findings. Given all the evidence which links higher teacher education to higher quality services for children (e.g., Cost, Quality and Outcomes Study Team, 1995; Whitebook, Howes, & Phillips, 1989), these data are somewhat discouraging. However, more recent research (Saluja, Early, Clifford, unpublished manuscript) suggests that many states are making efforts to reform their policies regarding teacher education requirements in the hopes that they will soon have a more highly educated early childhood workforce.

Another somewhat discouraging finding is that the childcare workforce is still predominantly White and is not well matched with the ethnic/racial diversity seen among children. In fact, the percent of

teachers from minority backgrounds has *decreased* since the 1990, according to these data. In 1991 Kisker et al. reported that the racial and ethnic backgrounds of teachers in early education and care programs in 1990 were as follows: 74% White, 5% Hispanic, 18% Black, and 3% Other. We estimated that 78% of teachers in center based care are White, while only 10% are Black, 6% are Latino, and 6% are of another race (or mixed race). Ideally, the early childhood workforce should reflect the cultural composition of those children enrolled in early childhood programs. Seeing teachers from a similar ethnic background validates children's identities. Further, seeing teachers from different backgrounds helps break down stereotypes (Chang, Muckelroy & Pulido-Tobiassen, 1996). Efforts toward recruiting a more ethnic minorities into the field of early childhood education need to be made.

Our data indicate that, on average, centers tend to have staff:child ratios comparable to NAEYC's recommendation, except for-profit centers. Given that this is probably a "best case" picture, the fact that for-profit centers report ratios of more than 1:10 seems problematic. Kisker et al. (1991) also found that for-profit chain centers, had less favorable ratios than independent for-profit, religious sponsored and other non profit centers. This variation in ratios among different types of centers is probably due in part to variation in state child care licensing regulations. According to data compiled in 1998 (citation), sixteen states allowed for ratios between 1:15 and 1:20. Until states adopt more strict regulations, centers will continue to maintain high ratios in order to maximize revenues.

The majority of early childhood programs operate during the day. Less than 1% of the programs operate at night, making it difficult for parents who work 2nd or 3rd shift to find center based care for their children. As more programs open in the schools, more programs will follow school hours, making it increasingly difficult for this population to find care for their children. These parents are forced to select other types of care. Careful consideration needs to be given to this issue so as to avoid overlooking this important part of our population.

Limitations of Study

Based on the average age of our sample, the education level, and the relatively low turnover rate, we suspect that our sample may not be wholly representative of the national early childhood workforce.

We suspect that this is due to our sampling method and our lower than anticipated response rate. We believe that directors asked their more experienced teachers to complete the teacher section of the questionnaire. Therefore, the average age, educational attainment and tenure of teachers reflected in this study is likely to be inflated. However, if most directors chose their best teacher, comparisons among different program types are probably accurate. Nonetheless, these data should be interpreted with caution.

Conclusion

As more and more parents of young children are entering the workforce, they face the sometimes difficult task of choosing who will care for their children. As they make these decisions, it is important that they have access to information such as this. Further, in order to make improvements to the early childhood education system, we need to have access to information on the current status of the programs available to young children. More research is needed and ongoing tracking of early childhood programs and the workforce would aid policy makers as decisions are made about regulation and funding.

References

Bredekamp, S., Copple, C. (1997). Developmentally Appropriate Practice in Early Childhood Programs. Washington D.C.: National Association for the Education of Young Children.

Bureau of Labor Statistics (1997). Shift usually worked: Full-time wage and salary workers by selected characteristics, May 1997. [online]. available: http://www.bls.gov/news.release/flex.t03.htm

Chang, H., Muckelroy, A., & Pulido-Tobiassen, D. (1996). Looking in, looking out: Redefining child care and early education in a diverse society. San Francisco, CA: California Tomorrow.

Child Care Bulletin. (1997). A Profile of the Childcare Workforce, 16. [online]. available: http://nccic.org/ccb-ja97/workorc.html

Clifford, R.M., Early, D.M., & Hills, T. (1999). Almost a Million Children in School Before Kindergarten: Who is responsible for early childhood services? Young Children, 54(5), 48-51.

Cost, Quality, and Outcomes Study Team (1995). Cost, Quality, and Outcomes in Child Care Centers, Public Report, second edition. Denver: Economics Department, University of Colorado at Denver.

Department of Health and Human Service. (1996). Head Start Performance Standards. Page 57185-57227. [online]. available: http://www.bmcc.org/nish/courses/Performance/perform.htm

Department of Health and Human Services (1998). Parental Labor Force Participation: Percentages of Children with Both Parents or Only Resident Parent in the Labor Force. [online]. available: http://aspe.os.dhhs.gov/hsp/98trends/Sec2c.pdf

Early, D. M., Pianta, R. C., & Cox, M. J. (1999). Kindergarten teachers and classrooms: A Transition context. Early Education and Development, 10, 24-46.

Hofferth, S.L., Brayfield, A., Deich, S. and Holcomb, P. (1990). National Child Care Survey, 1990. Washington, D.C.: Urban Institute Press.

Kisker, E. E., Hofferth, S. L., Phillips, D. A., & Farquhar, E. (1991). A profile of child care settings: Early education and care in 1990. (GPO: 1992 322-968 Vol. I: QL-3) Washington DC: U.S. Government Printing Office.

Mitchell, A., Ripple, C., & Chanana, N. (1998). Prekindergarten Programs Funded By the States Essential Elements for Policy Makers. New York: Families and Work Institute.

National Association for the Education of Young Children. (1995). Responding to Linguistic and Cultural Diversity: Recommendations for Effective Early Childhood Education. Washington D.C.: author.

National Resource Center for Health and Safety in Child Care (2000). Individual States' Child Care Licensure Regulations. [online]. available: http://nrc.uchsc.edu/states.html#TOP

Saluja, G., Early, D.M. & Clifford, R.M. (2000). Public School Involvement in Pre-Kindergarten Programs: A Survey of States. Unpublished research, University of North Carolina at Chapel Hill.

Schulman, K., Blank, H. & Ewen, D. (1999). Seeds of Success: State Prekindergarten Initiatives 1998-99. Washington D.C.: Children's Defense Fund.

Whitebook, M., Howes, C., & Phillips, D. (1989). Who cares? Child care teachers and the quality of care in America: Executive summary of the National Child Care Staffing Study. Oakland, CA: Child Care Employee Project.

U.S. Bureau of the Census. (1996). 1996 Statistical abstract of the United States: Labor force, employment, and earnings. [online]. available: http://stats.bls.gov/blshome.htm

U.S. Department of Education, National Center for Education Statistics. (1998). Characteristics of Children's Early Care and Education Programs: Data from the 1995 National Household Education Survey, (NCES 98-128). Washington D.C.: author.

Table 1

Program Type

	Sample Size	Population Estimate	SE	% of Population
Head Start	227	6,462	349	8%
Public School (not Head Start)	313	12,017	300	16%
Other public agency or independent, non-profit	585	19,179	803	25%
Affiliated with a church or synagogue	317	17,194	558	22%
For-profit	420	22,630	774	29%
TOTAL		**77,482**		

Table 2

Percentages (and Standard Errors) of Centers by Length of Day and by Program Type

	Overall	Public school	Head Start	Other public agency or independent non-profit	Church/ Synagogue	For-profit
Half day (5 or less hours)	11.6 (0.8)	12.4 (1.9)	17.3 (2.6)	13.5 (1.9)	17.1 (2.2)	3.7 (1.1)
School day (5.1-8 hours)	30.0 (1.1)	73.0 (2.6)	46.7 (3.7)	19.5 (2.0)	35.1 (2.8)	7.8 (1.6)
Full day (more than 8 hours)	57.8 (1.1)	14.1 (2.1)	35.7 (3.7)	66.2 (2.4)	47.6 (2.8)	87.5 (2.0)
Nontraditional hours	0.7 (0.3)	0.5 (0.4)	0.4 (0.4)	0.8 (0.5)	0.3 (0.3)	1.0 (0.7)

Table 3

Teacher Race and Education Percentages (and Standard Errors) by Program Type

	Overall	Public school	Head Start	Other public agency or independent non-profit	Church/ Synagogue	For-profit
Teacher Race						
American Indian or Native Alaskan	0.9% (.4)	0.6% (.5)	5.1% (3.2)	0.2% (.2)	0.6% (.5)	0% (0)
Asian or Pacific Islander	1.1% (.4)	0% (0)	2.7% (2.3)	0.5% (.2)	1.7% (.8)	0.9% (.4)
Black or African American	10.2% (1.2)	8.4% (2.3)	35.0% (6.5)	9.0% (1.5)	5.5% (1.2)	5.6% (1.5)
Hispanic or Latino	5.7% (1.0)	10.5% (5.0)	6.4% (2.5)	3.6% (.9)	2.9% (1.0)	7.5% (2.1)
White	78.4% (1.6)	78.2% (5.0)	47.5% (6.2)	80.5% (2.4)	85.7% (2.1)	83.3% (2.6)
Mixed/Other	3.8% (.6)	2.3% (1.1)	3.4% (1.4)	6.2% (1.8)	3.6% (1.1)	2.7% (1.0)
Teacher Education						
High School graduation or below	8.6% (1.0)	.1% (.1)	6.0% (2.3)	7.4% (1.8)	7.7% (1.7)	14.5% (2.4)
vocational training or some college	26.8% (1.6)	4.0% (1.3)	33.2% (6.2)	20.4% (2.4)	28.6% (3.5)	36.0% (3.3)
Associates	14.7% (1.7)	8.9% (2.7)	17.7% (2.3)	17.7% (2.3)	17.9% (2.8)	10.8% (2.0)
Bachelors or higher	49.9% (1.8)	87.0% (2.9)	40.4% (6.1)	54.5% (3.0)	45.8% (3.6)	38.6% (3.5)

Note: All values are weighted to represent the U.S. as a whole (overall column) or the specified program type. Values in parentheses represent standard errors.

Table 4

Mean Percentages (and Standard Error) of Students in Each Racial Group by Program Type

	Overall	Public school	Head Start	Other public agency or independent non-profit	Church/ synagogue	For-profit
American Indian or Native Alaskan	1.2% (.2)	1.6% (.6)	2.2% (.6)	0.7% (.2)	0.9% (.4)	1.1% (.3)
Black or African American	15.1% (.8)	19.9% (2.0)	36.5% (4.1)	16.0% (1.7)	6.8% (.9)	11.1% (1.1)
Asian or Pacific Islander	3.5% (.3)	3.3% (.7)	.8% (.3)	4.3% (.7)	4.5% (.7)	3.0% (.5)
White	65.8% (1.1)	51.8% (3.3)	40.1% (4.7)	64.8% (2.1)	77.8% (1.8)	72.5% (.7)
Hispanic or Latino	8.7% (.7)	19.0% (3.2)	15.8% (3.9)	6.6% (.8)	5.5% (.8)	6.3% (.9)
Mixed Race/ Ethnicity	5.0% (.7)	3.7% (.7)	4.8% (.9)	6.3% (.6)	4.0% (.5)	5.3% (.7)
Other	0.8% (.1)	0.6% (.2)	0.1% (.1)	1.4% (.4)	0.8% (.2)	0.7% (.2)

Note: All values are weighted to represent the U.S. as a whole (overall column) or the specified program type. Values in parentheses represent standard errors.

Table 5

Percentages (and Standard Errors) of Classrooms with 75% or More of One Racial Group, by Program Type

	Overall	Public school	Head Start	Other public agency or independent non-profit	Church/ Synagogue	For-profit
African American	6.4% (.8)	9.4% (2.0)	22.2% (4.9)	5.9% (1.4)	3.0% (.8)	1.9% (.7)
Native American	.3% (.1)	.5% (.5)	.7% (.4)	.1% (.1)	.4 (.3)	.2% (.2)
Asian	.3% (.1)	.5% (.5)	0% (0)	.7% (.5)	.4 (.3)	.1% (.1)
Hispanic	2.8% (.7)	8.6% (2.5)	8.6% (4.8)	1.1% (.5)	1.1% (.7)	1.1% (.7)
White	51.4% (1.8)	36.7% (4.5)	21.7% (5.4)	53.1% (3.1)	67.2% (3.4)	55.2% (3.5)
None over 75%	38.7% (1.7)	44.4% (4.8)	46.7% (6.2)	39.0% (3.0)	27.9% (3.3)	41.6% (3.5)

Note: All values are weighted to represent the U.S. as a whole (overall column) or the specified program type. Values in parentheses represent standard errors.

Table 6

Percentages (Standard Errors) of Teachers in Each Racial/Ethnic Category by Predominate Race/Ethnicity of Children in the Classrooms

Teacher race	**Classroom race**					
	75% African American	75% Asian	75% Hispanic	75% Native American	75% White	No race 75% or over
African American	70.5% (5.1)	0% (0)	23.8% (16.0)	0% (0)	1.4% (.5)	11.1% (1.9)
Asian	.8% (.5)	6.6% (6.7)	0% (0)	0% (0)	.3% (.1)	2.1% (.9)
Hispanic	0% (0)	6.8% (6.9)	46.4% (12.4)	0% (0)	.7% (.3)	10.4% (2.2)
Native American	.3% (.3)	0% (0)	0% (0)	31.9% (18.0)	0% (0)	1.9% (1.0)
White	22.3% (4.6)	70.2% (16.7)	25.8% (8.4)	41.5% (19.2)	95.3% (.9)	69.9% (2.9)
Mixed Other	6.2% (2.6)	16.2% (14.8)	4.0% (2.7)	26.6% (14.7)	2.3% (.6)	4.7% (1.2)

Note: All values are weighted to represent the U.S. as a whole (overall column) or the specified program type. Values in parentheses represent standard errors.

Table 7

Mean Group Size and Staff: Child Ratios (and Standard Errors) by Program Type

	Overall	Public school	Head Start	Other public agency or independent non-profit	Church/ Synagogue	For-profit
Children in group	16.4 (.2)	16.9 (.5)	18.2 (.4)	17.1 (.4)	15.0 (.4)	16 (.4)
Paid staff in group	2.0 (0)	2.4 (.1)	2.2 (.1)	2.2 (.1)	1.7 (.1)	1.7 (.1)
Staff:Child ratio	1:9 (.1)	1:8.1 (.4)	1:8.5 (.3)	1:8.9 (.2)	1:9.7 (.3)	1:10.2 (.3)

Note: All values are weighted to represent the U.S. as a whole (overall column) or the specified program type. Values in parentheses represent standard errors.